

IMPERIAL VALLEY COLLEGE
Industrial Technology Division
Welding Technology Department

Course Title: WELD 101 – Gas Tungsten Arc Welding on Plate

Credits/Units: 3 (2 hours lecture, 4 hours lab.)

Semester: Spring 2014 Jan21 - May 16

Class Schedule: Saturday 8:05 – 9:55 am Lecture 1200
10:05 am – 2:20 pm Lab 1200

Location: Lab 1200 Lecture 1200

Instructor: Oscar Cervantes

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Substitute Instructors: Fred River, Gonzalo Huerta, Frank Cervantes

Secretary/Division Office 760 – 355-6361

Secretary/Dean's Office 760 – 355-6217

Division Coordinator 760 – 355-6361 (Jose Lopez)

SPRING CLASS SCHEDULE 2014

Spring SEMESTER 2014 IMPORTANT DATES AND DEADLINES

NOTE: The deadlines below are for full-term classes. Deadlines for short-term classes vary with the length of the class. Most deadlines are mandated in the CA Code of Regulations and are a percentage of the length of the class.

January 20 Residency determination date.

January 21 Classes begin. Beginning on first day each class meets, add authorization code from instructor required to register for that class, filled or open.

January 21 – February 1 Late Registration. Beginning on first day each class meets, add authorization code from instructor required to register for that class, filled or open.

*****February 1***** Deadline to register for full-term courses Deadline to drop full-term classes without owing fees and/or be eligible for refund. Deadline to select P/NP grading option for courses with that option (see section on Change Grading Options). Does not pertain to Non-credit Program courses.

February 2 Deadline to drop without course appearing on transcript (without receiving W). Note: fees will be charged and no refunds given for courses dropped on February 2. See February 1.

January 20 Holiday – Martin Luther King Day. No classes

February 3 Census

February 3 Ticketing for parking violations in student spaces on main campus begins. Note: tickets are issued for reserved (faculty/staff), disabled, metered, 15-minute, and no-parking spaces year around.

February 10 Financial Aid Enrollment Freeze Date

February 14-15 Holiday - Lincoln's Birthday. No classes.

February 17 Holiday – President's Day. No classes.

February 28 Deadline to make up incomplete grade (I) granted Fall 2013.

March 14 Deadline to submit Petition for Graduation for degree to be awarded for Spring and Summer 2014 and participate in Commencement. Completed petition must be received in Admissions & Records Office by this date. Students must meet with a Counselor and have an evaluation completed and petition signed before this date.

March 26 Financial Aid Return to Title IV drop deadline.

April 21-26 Spring Recess. No classes.

April 11 Deadline to drop full-term classes. (Note: This deadline date is not for short-term classes.)

May 12-16 Final Exams.

May 17, 2014 Commencement Ceremony

June 16 Summer Term 2014 classes begin.

A. Course/Catalog Description

Theory, practice, and application of Gas Tungsten Arc Welding process on mild steel plate, aluminum, and stainless material. Safe equipment set up, welding symbols, and its application in GTAW process is taught and applied. (Formerly WELD 160)
(Nontransferable, AA/AS degree only)

B. Institutional Student Learning Outcomes:

- 1. Communication Skills** (Reading, Writing, and Speaking)
- 2. Critical Thinking** (Problem Solving)

3. **Personal Responsibility** (Meeting Rules, Procedures, Employability skills, etc.)
4. **Information Literacy** (Understanding information sources such as internet, media, etc.)
5. **Global Awareness** (Understanding our position within a Global context.)

Student Learning Outcomes (SLO's):

Upon course completion, the student will have acquired new skills, knowledge, and or attitudes as demonstrated by being able to:

1. List at least five (5) different articles of Personal Protective Equipment and explain what welding environment hazard is being addressed by each article of PPE. (ILO1, ILO2)
2. Demonstrate proper interpretation of a standard Material Safety Data Sheet (MSDS). (ILO 1, ILO2)
3. Describe and Demonstrate the proper set-up and use of the major components and equipment used in Gas Tungsten Arc Welding (GTAW). (ILO1, ILO3)
4. Safely perform acceptable welds on ferrous alloys applying the weld parameters according to the given WPS. (ILO1, ILO2, ILO3)
5. Separate acceptable and unacceptable weld samples in accordance with predetermined specifications, standards and codes. (ILO1, ILO2)

C. Measurable Course Objectives – Upon successful completion of this course, the student will:

1. Demonstrate safe working habits in the laboratory component.
2. Initiate the set-up of welding equipment while demonstrating safety protocols.
3. Illustrate and utilize the theory behind Gas Tungsten Arc Welding (GTAW)
4. Demonstrate the GTAW process by welding mild steel, aluminum, and stainless steel plates.
5. Identify and apply the proper filler material to the base material.
6. Identify and interpret welding symbols in accordance with blueprint drawings.

D. Course Instructional Schedule

Safety in Welding
 Print reading
 Gas Tungsten Arc Welding setup, safe operation of equipment.
 Gas Tungsten Arc Welding on plate
 Welding joint design, welding symbols, and fabrication
 Welding codes, standards, and costs
 Testing and inspections of welds

Instructional Methodology: Lecture, Lecture/Demonstration, Group Discussion, Fieldtrip, Outside Class Assignments, Media Presentations.

E. **Grading Criteria**

1. **Attendance:** First day of class, regular attendance and withdrawal after exceeding the number of class hours per week.
2. **Tardiness:** Three times equals one absence (I.V.C. Gen. Catalog pg.24) 09-10
3. **Absences:** 3 absences = automatic drop. (I.V.C. Gen. Catalog pg.24) 09-10
4. **Student Conduct** (I.V.C Gen. Catalog pg. 22) 2009-10
5. **Grading System** (I.V.C. General Catalog pg. 17) 2009-10

A = 90% - 100% of points = Excellent

B = 80% - 89% of points = Good

C* = 70% - 79% of points = Satisfactory

D = 60% - 69% of points = Pass, Less than Satisfactory

F = Less than 60% of points = Failing

* Many programs require most or all courses to be completed with a “ C ” grade or better; not an average of “ C.”

6. Overall Regulations (I.V.C General Catalog, pgs. 19-29)

F. **Students with Disabilities**

Any student with a disability who may need accommodations should notify the instructor or the Disabled Student Programs & Services (DSPS) Office for assistance (Bldg. 2100)

G. **Equipment and Supplies**

1. **Personal Protective Equipment (PPE)**

Safety Glasses

Helmet/Hood

Welding Cap

Welding Gloves

Leather Work Boots

Ear plugs/Protection

100% cotton long sleeve shirt & pants

Leather jacket or sleeves

(NO CONTACT LENSES in the Lab)

H. **Welding Standards**

The learning activities for the Imperial Valley College Welding Technology Program are based on accepted practices, procedures, specifications and standards of, but not limited to:

The American Welding Society (AWS)

The American Society for Testing and Materials (ASTM)

The American Petroleum Industry (API)

The American National Standards Institute (ANSI)

The American Society of Mechanical Engineers (ASME)

The American Society for Non-Destructive Testing (ASNT)

